D.P.U. 95-91

Application of Boston Edison Company, pursuant to G.L. c. 164, § 94G(a), for approval by the Department of Public Utilities of the Company's annual performance program relating to fuel procurement and use for the period November 1, 1995 through October 31, 1996.

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FOR: BOSTON EDISON COMPANY
Petitioner

I. INTRODUCTION

On August 10, 1995, pursuant to G.L. c. 164, § 94G(a), Boston Edison Company ("BECo" or "Company") filed a petition with the Department of Public Utilities ("Department"), requesting approval of proposed generating unit performance goals for the period November 1, 1994 through October 31, 1995. Section 94G(a) requires each electric company to file with the Department annual performance programs that provide for the efficient and cost-effective operation of its generating units. Each company's performance program must include proposed unit and system performance goals for availability factor ("AF"), equivalent availability factor ("EAF"), capacity factor ("CF"), forced outage rate ("FOR"), and heat rate ("HR"). The petition was docketed as D.P.U. 95-91.

Pursuant to notice duly issued, the Department conducted a hearing on the Company's petition on September 14, 1995. In support of its petition, the Company sponsored the testimony of Thomas F. Carroll, performance and reliability coordinator of the Company's fuel and power contracts department. The evidentiary record includes 17 exhibits and the Company's responses to the Department's seven record requests.

II. THE COMPANY'S SUPPLY-SIDE PORTFOLIO

BECo owns and operates the following units: Pilgrim 1, a 670 megawatt ("MW") nuclear unit; fossil units Mystic 4, 5, 6, and 7, with generating capacities of 135 MW, 135 MW, 141 MW, and 565 MW, respectively, and New Boston 1 and 2, with a generating capacity of 350 MW for each unit; and 13 combustion turbine units, often referred to as "Jets," at L Street Station, South Boston, (22 MW), Mystic Station, Everett, (15 MW), Edgar Station, Weymouth, (30 MW), Framingham Station (45 MW), and Medway Station (180 MW) (Exhs. BE-3; DPU-1; DPU-3).

BECo owns shares of two units that it does not operate. These are Connecticut Yankee and Wyman 4. The Company owns a 9.5 percent share of Connecticut Yankee, a 583.2 MW nuclear unit operated by Connecticut Yankee Atomic Power Company, and receives power from this unit in proportion to its ownership share under a long-term contract that extends to the end of 2006 (Exhs. BE-4; DPU-1; Tr. at 11-12). The Company also owns a 5.9 percent share of Wyman 4, a 619.2 MW oil-fired unit in Yarmouth, Maine, which is operated by Central Maine Power Company, the majority owner. BECo receives power from Wyman 4 in proportion to its ownership share under a long-term contract that extends to November, 2011 (Exhs. BE-3; BE-4; DPU-1; Tr. at 12).

BECo also receives power from the Canal 1 unit, which is owned and operated by the Canal Electric Company ("Canal"). The Company's contract with Canal entitles it to 25 percent of Canal 1's generating capacity of 557 MW, and extends to the year 2001 (Exhs. BE-3; BE-4; DPU-3; Tr. at 9-10).

The Company also receives power from the following generating units owned and operated by non-utilities: L'Energia (63.4 MW), the Metropolitan District Commission's ("MDC") Sudbury Dam (0.75 MW); the Massachusetts Bay Transit Authority's ("MBTA") M Street Jets 1 and 2 (33.6 MW and 33.5 MW, respectively); Northeast Energy Associates (253.7 MW); Ocean State Power (132.8 MW); and Masspower (117 MW) (Exhs. BE-4; DPU-6; RR-DPU-1).

For the purpose of distinguishing those units that contribute most to system costs, performance programs identify major and minor units. Major units are units that contributed at least five percent of the system generation, as measured in megawatthours, in any of the previous three years, or units in which the Company has at least a 100 MW entitlement. Any unit that does not qualify as a major unit is a minor unit. The Company's major units are Pilgrim; New Boston 1 and 2; Mystic 4, 5, 6, and 7; and Canal 1 (Exhs. BE-3; DPU-1).

III. PERFORMANCE GOALS

A. The Company's Goal Proposals

The Company proposed goals for its major and minor units: Pilgrim, Mystic 4, 5, 6, and 7, New Boston 1 and 2, Canal 1, Connecticut Yankee, Wyman 4, Medway Jets, L Street Jet, Edgar Jets 1 and 2, Framingham Jets 1, 2, and 3, and Mystic Jet, using two different methods.

Under the Company's first goal proposal, the EAF goals for major and minor units were set at values corresponding to each unit's Target Unit Availability ("TUA"), the availability targets that New England Power Pool ("NEPOOL") sets for each member utility's units under its Performance Incentive Program. In developing its proposed goals, the Company used the TUAs approved by the New England Power Supply Planning Committee ("NEPLAN") and adopted by the NEPOOL Executive Committee in January 1993, which became effective in the 1993-1994 performance year and have not been revised since (Exhs. BE-1, at 3; BE-7). BECo submitted proposed EAF goals for its major and minor units that were calculated in a manner that was generally consistent with the methodologies approved in the Company's last performance program, Boston Edison Company, D.P.U. 94-141 (1994).

In addition, the Company supplemented its performance program filing with an alternative set of performance goals based on the EAF goals that were calculated using five-year-average historical performance data (Exh. BE-1, at 6). According to the Company, the alternative goals proposal was submitted in compliance with the Department finding that "linking EAFs used for planning purposes with those adopted for the purpose of Company performance reviews would further enhance the process of merging business and resource planning." Boston Edison Company, D.P.U. 94-49, at 59 (1995). In D.P.U 94-49, the Department directed the Company to present in its next performance goals filing a generating unit performance incentive plan that would utilize EAF goals that would be consistent with the EAF values identified for resource planning purposes in IRM proceedings. Id.

Under the Company's alternative goals proposal, the EAF goals for major and minor units were calculated in accordance with the method presented in the resource planning filing, D.P.U. 94-49 (RR-DPU-5). In particular, the Company based EAF goals on a five-year-average historical equivalent forced outage rate ("EFOR") and projected planned outage hours (id.; Exhs. BE-1, at 6).[1] The Company used the five-year historical data from 1990 through 1994 to calculate the five-year-average EFORs and its projections for the planned outages scheduled for 1996 (Exh. BE-8; RR-DPU-5).

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[1] The EAF goal is calculated as the difference between 100 percent and the equivalent forced outage rate ("EFOR") multiplied by one less the ratio of the planned outage hours ("POH") to the period hours ("PH") (RR-DPU-5). The EFOR is defined by the North American Electric Reliability Council as a ratio of the sum of the forced outage hours ("FOH") and the equivalent unplanned derated hours ("EUDH") to the sum of the service hours ("SH"), the FOH, and the reserve shutdown hours ("RSH") (id.; Tr. 23-24).

In both sets of goals, the Company calculated the remaining performance goals (i.e., AF, CF, FOR, and HR) in accordance with the major unit methodology approved in previous proceedings, regardless of whether units met the major or minor unit criteria (Exhs. BE-1, at 5; BE-9; Tr. at 27).[2] The Company also calculated system goals for both proposals in a manner generally consistent with the methodology that has been approved by the Department in previous proceedings (Exh. BE-1, at 3; RR-DPU-4).[3] The Company's proposed generating unit and system goals, both based on NEPOOL TUAs and on the five-year-average EFORs, have been reproduced in Table 1 and Table 2, respectively, attached to this Order.

The Company explained that it did not propose goals for L'Energia, MDC Sudbury Dam, and Northeast Energy Associates in either proposal because the owners of these facilities receive

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2 AF goals were derived by adding to the EAF goal the ratio of average annual equivalent derated hours for the last three years to average annual period hours (Exh. BE-1, at 5). CF goals for fossil units were derived by multiplying the ratio of the three-year average CF to the three-year average EAF by the EAF goal (id.). CF goals for nuclear units were proposed equal to their EAF goals (Exh. BE-6, at 3). FOR goals were derived by dividing projected forced outage hours ("FOH") by the sum of projected FOH and service hours ("SH") (id.). Projected FOH were developed by dividing the three-year average FOH by the three-year average period hours ("PH"), then multiplying by the PH in the performance year (id.). Projected SH were developed by calculating the ratio of three-year average SH to three-year average availability hours ("AH") and multiplying that ratio by the AF goal, then by PH in the performance year (id.). HR goals were set at the best (lowest) annual HR obtained during the previous three years (id.).

3 System goals for EAF, AF, CF, FOR, and HR were developed from the weighted averages of the goals for the individual units. The weighting factor for each unit was the ratio of unit to system generation as projected during the performance year. Projected generation for each unit was calculated by multiplying each unit's capacity by its CF goal, then by the PH in the performance year. Projected system generation was calculated as the sum of projected unit generations across the system (Exhs. BE-1, at 3; BE-2).

compensation only if they provide electric power to BECo and, therefore, performance goals would provide no additional incentive for the efficient operation of these facilities (Exh. BE-1, at 4-5). Ocean State Power and Masspower were excluded from the Company's goal proposals because, according to the Company, these contracts contain performance guarantees that provide sufficient positive benefits for ratepayers (id. at 4). The Company also explained that it did not propose performance goals for MBTA M Street Jets 1 and 2 because performance statistics for these units are not available (id.; Exhs. DPU-5; DPU-6; Tr. at 17-19; RR-DPU-3).

B. The Company's Position

The Company notes that the EAF goals calculated using the five-year-average historical EFORs and projections for the planned outages differ only slightly from the EAFs based on the NEPOOL TUAs (Exh. DPU-7). In addition, the Company explained that the generating unit performance goals established by the Department traditionally have played only a minor role in the Company's business planning process (id.). The Company claims that it has never based its decisions regarding the operation and maintenance of its generating units on the performance goals set by the Department, but rather has always operated and maintained its units in accordance with good utility practice, corporate budgetary constraints, and NEPOOL operating requirements (id.). The Company believes that the proposed performance goals based on NEPOOL TUAs are preferable both from a functional and administrative perspective (id.).

IV. ANALYSIS AND FINDINGS

In this proceeding the Department continued its investigation of the matters related to the possible discrepancy between the EAF values used by the Company for business and resource planning purposes, and those proposed as goals in the Company's generating unit performance program under G.L. c. 164, §94G. Establishing a link between the Company's business and resource planning process, and that by which generating unit performance goals are established, will encourage the optimal use of existing resources, which is particularly important in an increasingly competitive environment.

Analysis of the Company's alternative goals proposal shows that the EAF goals consistent with the values identified in the resource planning process are the products of a more reliable assessment of the future performance of the generating units and in many instances exceed the NEPOOL TUAs of these units. Thus, at a conceptual level, these resource planning EAFs would represent a lower bound on what might be the "optimal" target that the Company might seek to achieve. Conversely, it would not be appropriate for the Department to establish as "goals" EAF values equal to NEPOOL TUAs that are below levels that those units are expected to achieve.

While the approach used in the resource planning process may occasionally produce lower EAF values than NEPOOL TUAs, the Department finds that it would not be appropriate to establish as EAF goals values that are below those used by NEPOOL, which reflect the Company's obligation to the pool with regards to the availability of its generating units. Therefore, the Department finds that, at a minimum, the EAF goals should be set at levels equal to the NEPOOL TUAs.

In Cambridge Electric Light Company, D.P.U. 95-38, at 5 (1995) ("Cambridge") and Commonwealth Electric Company, D.P.U. 95-39, at 6 (1995) ("Commonwealth"), the Department noted that "performance goals should be set at the greater of NEPOOL's TUA or the EAF levels that a company projects for resource planning purposes." The approach to goal-setting set forth above is consistent with that suggested in Cambridge and Commonwealth.

Therefore, the Department finds that BECo's generating unit performance goals shall be set at the greater of NEPOOL's TUA or the EAF levels that BECo projects for resource planning purposes.

The Department has reviewed the Company's goal proposals and finds that the method based on NEPOOL TUAs resulted in greater EAF goals for New Boston 2, Canal 1, Mystic 6, Mystic 5, Mystic 4, Connecticut Yankee, Medway Jets, L Street Jet, Mystic Jet, Framingham Jets, and Edgar Jets, while the method based on the five-year-average EFORs produced greater EAF goals for Pilgrim, Mystic 7, and New Boston 1.

The Department approves the performance goals based on NEPOOL TUAs for New Boston 2, Canal 1, Mystic 6, Mystic 5, Mystic 4, Connecticut Yankee, Medway Jets, L Street Jet, Mystic Jet, Framingham Jets, and Edgar Jets, and the performance goals based on the five-year-average EFORs for Pilgrim, Mystic 7, and New Boston 1. The Company's unit and system performance goals for the period from November 1, 1995 through October 31, 1996 are identified in Table 3 attached to this Order.

V. ORDER

Accordingly, after due notice, hearing, and consideration, it is

ORDERED: That the generating unit and system performance goals for Boston Edison Company, for the period November 1, 1995 through October 31, 1996, shall be those contained in Table 3 attached to this Order; and it is

FURTHER ORDERED: That, as part of its next performance goals filing, the Company shall submit proposed performance goals based on NEPOOL TUAs effective at that time, or the five-year-average EFORs, whichever results in greater EAF values, and shall comply with the requirements set forth in this Order; and it is

FURTHER ORDERED: That the Company shall file its next performance program goals by August 1, 1996, and the next performance period shall run from November 1, 1996 through October 31, 1997.

By Order of the Department,

Mary Clark Webster, Commissioner

Janet Gail Besser, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).